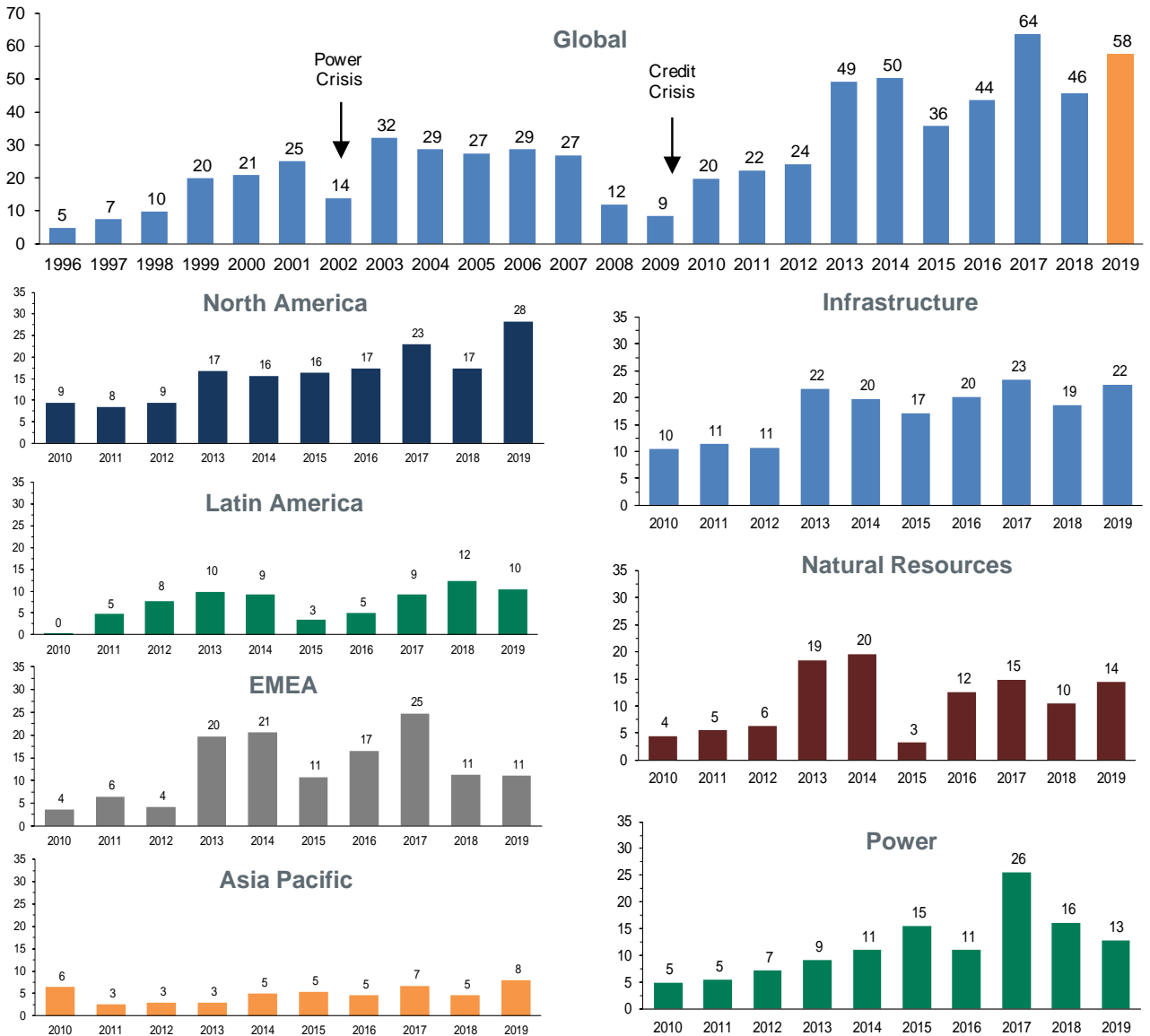




GLOBAL PROJECT BONDS MARKET OVERVIEW

2019 Annual Performance Review

Project Bond Issuances by Year in \$BN (Source: PFI)



FY 2019 Project Bond Market Commentary

- Supported by a low rate environment, the global project bond market increased by 26% in 2019 vs. 2018 reaching, \$57.7BN - the second highest annual volume on record. The overall market grew at a 11% CAGR over the 2010-2019 period.
- The North American region (driven by the US, the largest single country by volume) led the global project bond market growth with a 62% increase to reach a all time high record of \$28.2BN vs. \$17.4BN in 2018.
- The EMEA region remained stable (\$11.1BN) as the sharp decrease in issuances from the UK was mitigated by strong performance in Italy and France.
- Latin America (\$10.3BN) shrunk by 16% on the back of an exceptional year in 2018. Peru (\$2.3BN) was particularly active in 2019, ahead of Mexico (\$2.1BN) and Brazil (\$2.1BN). First issuances were recorded in Paraguay and Ecuador.
- The infrastructure sector remained the largest sector in 2019 at \$25.1BN, a 35% pickup over last year driven by transportation (\$19.2BN). The largest move was encountered in the natural resources sector which doubled year over year to reach a all time high of \$20.6BN driven by LNG transactions (\$10.6BN). The power sector (\$12.7BN) decreased by 21% mainly dragged down by lower renewable issuances (-\$4BN).

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal.



GLOBAL PROJECT BONDS MARKET OVERVIEW

Recently closed transactions

ENERGY

- **KST Electric Power Company S.A.P.I. de C.V. (Unrated):** \$401MM in 18-year fully amortizing senior secured notes to refinance the 450MW Norte II combined-cycle power plant in Mexico. The landmark transaction was structured with two privately placed pari-passu tranches including the first ever ECA-covered Project Bond tranche of \$250MM guaranteed by the Export-Import Bank of Korea ("KEXIM") and \$151MM in uncovered notes. (Sponsors: KEPCO, Samsung AM, Techint) **Crédit Agricole Securities acted as Sole Placement Agent.**
- **Cameron LNG (A3 / A / A-):** \$3BN in senior secured notes backing the Cameron LNG Project in Louisiana with combined production capacity of 13.9MTPA. The Project is comprised of 3 natural gas liquefaction trains, including one which started operation in August. The transaction was structured in four tranches of 11.5-year, 15-year, 18-year and 19-year which respectively priced at 2.902%, 3.302%, 3.701% and 3.402% and amounts of \$800MM, \$820MM, \$500MM and \$900MM. (Sponsors: Sempra, Total, Mitsui and NYK/Mitsubishi).
- **Celeo Redes (IG):** \$365MM in 30-year senior secured notes, with a 3.5-year delayed draw schedule, to finance a portfolio of transmission lines in Chile. The proceeds will be used for the construction of two assets (the Mataquito – Hualqui (MATE) transmission line and Nueva Alto Melipilla – Agua Santa (CASTE) transmission line) and the refinancing of the Illapa – Cumbre (DATE) transmission line which is already operational. The 5.150% notes were placed with a single buy-and-hold investor. (Sponsors: Grupo Elecnor and APG)
- **TAG Norte Holdings, S. de R.L. de C.V. (Investment Grade):** \$332MM in 20-year 4(a)(2) senior secured notes backing the 452km-long Ramones Norte natural gas pipeline in Mexico. The notes were part of a \$1.5BN bank / bond hybrid transaction comprised as well of \$700MM senior secured credit facilities provided by a group development banks and \$530MM senior secured credit facilities provided by a group of commercial banks. (Sponsors: IEnova and Brookfield Asset Management) **Crédit Agricole CIB acted as Joint Placement Agent.**
- **Rosales Solar Holding Inc. (-- / BBB- / --):** \$209MM in 30-year senior secured notes backing solar projects in Colorado and Georgia. The notes have a 21-year average life and priced at a 4.090% coupon with a 200bps spread on US Treasuries.
- **AES Southland Portfolio:** \$225MM in senior secured notes backing a 1,300MW portfolio located in California comprising the 644MW Huntington Beach gas-fired power plant, the 640MW Alamitos Energy Center Block 1 gas-fired power plant and the 100MW Alamitos Energy Center battery storage facility. (Sponsor: AES)
- **Adani Green Energy Portfolio:** \$363MM in 20-year senior secured notes backing a 570MW portfolio of three solar projects in India. The notes, labeled as green bonds, priced at a 4.625% coupon and received an investment grade rating. (Sponsor: Adani Green Energy)
- **Tajimi Solar PV Plant:** ¥11,000BN in 22-year green bond labeled senior secured notes to finance the construction of the 23MW Tajimi solar plant in Japan. (Sponsor: Renewable Japan)
- **Bothwell Spain SA:** €268MM in senior secured notes to refinance a 127MW portfolio composed of 23 solar assets in Spain. The transaction included as well €353MM in project finance loans comprised of a term loan A and B. (Sponsors: T-Solar, Meag, KKR)
- **GETEC:** €500MM in 10-year private placement notes to replace loans which were partly used to support EQT Infrastructure's acquisition of a 60% stake in GETEC in 2017. GETEC is a leading German energy provider company and most of the new debt will be used for its expansion. The notes provided were split between a term facility and a capex facility of undisclosed sizes. (Sponsor: EQT Infrastructure)

INFRASTRUCTURE

- **West Coast Partnership Rolling Stock:** £315MM in 30-years secured private placement loan backing the construction of 70 electric trains and 65 electric-diesel trains for the West Coast Partnership (WCP) franchise that runs between London, the Midlands, North Wales and the north of England. The notes priced at a 3.000% coupon rate with a 200bps spread. The new rolling stock is expected to reduce CO2 emissions by 61% across the 11-years franchise. (Sponsors: Aberdeen Standard Investments (ASI), Rock Rail).
- **Veenix A9 Amstelveen motorway PPP:** €170MM in 21-years senior secured fixed-rate facility to finance the expansion and upgrade of the A9 road located south of Amsterdam from three to four lanes in each direction. Construction will start in 2020 and end by 2026. Veenix is responsible for the design, build, finance and maintenance of the project for 14 years. (Sponsor: Macquarie Capital).
- **Oslofjord Varme:** NOK850MM in private placement notes to back the refinancing of Norway's Oslofjord Varme, a district heating and cooling company. The debt (NOK1700MM) is split equally between private placement notes across multiple tranches of debt up to 15 years in EUR/NOK and a 7-year bank debt. The new debt replaces NOK1450MM of 5-year debt provided last year. (Sponsor: Glasgow City Council)
- **Angel Trains:** £125MM in 8-year junior secured subordinated notes to replace existing debt which was repaid in December and mitigate its refinancing risk for the next few years. (Sponsors: AMP Capital, PSP Investments and International Public Partnerships)
- **Braskem Idesa (-- / BB- / BB):** \$900MM in 10-year senior secured notes to partly refinance the Etileno XXI petrochemical project in Mexico which benefits from a 20-year take-or-pay contract for ethane with Mexican state-owned oil firm Pemex. The notes will rank pari-passu with the remaining \$1.4BN project finance loan and carry the same collateral package but, will become senior unsecured once the project finance loans are fully liquidated. The notes priced at a 7.500% coupon. (Sponsors: Braskem and Idesa)
- **Line One Peru Metro Expansion Company Limited:** \$72MM in 14-year senior secured notes related to the expansion of Lima subway Line 1. The notes monetize the CPAOs obtained by the GyM Ferrovías concessionaire for completing certain construction milestones, which are unconditional and irrevocable obligation of the Government of Peru to make 56 equal quarterly payment over a 14-year period in USD. The notes priced at a 3.483% coupon. (Sponsors: Graña y Montero S.A.A and Ferrovías Participaciones S.A.)
- **York University Heslington Campus:** GBP 159MM in 45-year senior secured notes to finance the construction of a 1,200-bed student accommodation system. The transaction benefits from a guarantee provided by Assured Guaranty. The notes are inflation-linked and were placed with a single institutional investor. (Sponsors: Equitix, GRAHAM Construction and Derwent FM)

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal.



EMEA TRANSACTION SPOTLIGHT:

Angel Trains

- **The Issuer:** Angel Trains is one of the three main British rolling stock companies that were formed in the 1990s as part of the privatisation of the UK rail market (with Porterbrook and Eversholt).
- ✓ Angel is owned by infrastructure investors AMP Capital (65%), PSP Investments (30%) and International Public Partnerships (5%).
- ✓ The company leases to 18 franchised operators and two open access operators in the UK.
- **The Transaction:**
- ✓ £125MM of junior secured notes with a fixed-rate, a delayed drawn and a final maturity in 2027.
- ✓ The debt replaces £125MM of existing junior debt which was repaid in December.
- ✓ This transaction has mitigated its refinancing risk for the next few years.

AMERICAS TRANSACTION SPOTLIGHT:

KST Electric Power Company S.A.P.I. de C.V.

- **The Issuer:** KST Electric Power Company S.A.P.I. de C.V. that owns the 450MW Norte II combined-cycle power plant in Mexico .
- ✓ 25-year PPA with the state-owned utility CFE (Baa1 / BBB+ / BBB).
- ✓ Sponsors comprised of Korea Electric Power Corporation ("KEPCO", 56%), Samsung Asset Management (34%) and Techint (10%).
- **The Transaction:** \$401 million due 2037 issued in two pari-passu, unrated privately placed tranches, to refinance the outstanding non-recourse bank facilities:
- ✓ \$250 million senior secured notes irrevocably and unconditionally guaranteed by the Export-Import Bank of Korea ("KEXIM", rated Aa2 / AA / AA-).
- ✓ \$151 million senior secured uncovered notes
- ✓ This landmark transaction is the first KEXIM guaranteed Project Bond, and the first ECA-covered bond supporting a non-recourse project financing in the Capital Markets.
- ✓ **Crédit Agricole Securities acted as Sole Placement Agent.**

FY 2019 Global Project Bond League Tables
(Source: PFI)

#	Lead Manager	(\$MM)	# deals
1	JP Morgan	6,675	27
2	MUFG	4,855	26
3	Citi	4,582	32
4	SMBC	3,974	22
5	Morgan Stanley	3,495	8
6	Mizuho	3,495	17
7	Crédit Agricole	3,406	26
8	RBC	2,649	12
9	Santander	2,132	24
10	Goldman Sachs	1,996	15

FY 2019 Global Project Bond League Tables
(Source: IJGlobal)

#	Lead Manager	(\$MM)	# deals
1	SMBC	4,622	27
2	JP Morgan	4,374	18
3	Citi	3,755	22
4	MUFG	3,729	23
5	Mizuho	3,403	17
6	Crédit Agricole	2,707	20
7	Societe Generale	1,917	8
8	RBC	1,860	11
9	Santander	1,820	24
10	Barclays	1,795	10

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal,



GLOBAL PROJECT BONDS MARKET OVERVIEW (cont'd)

Primary Issuances

ENERGY										
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
KST Electric Power Company S.A.P.I. de C.V.	LatAm	USD	401	19-Dec	18	10	3.300% / 5.700%	145bps / 393bps	NR	
Cameron LNG	NAm	USD	3,020	19-Dec	11.5 / 15 / 18 / 19	--	2.902% / 3.302% / 3.701% / 3.402%	110bps / 150bps / 160bps / 145bps	A3 / A / A-	
Celeo Redes	LatAm	USD	365	19-Dec	30	--	5.150%	--	IG	
TAG Norte Holdings, S. de R.L. de C.V.	LatAm	USD	332	19-Dec	20	14	5.040%	308bps	Private	
Rosales Solar Holding Inc	NAm	USD	209	19-Dec	30	21	4.090%	200bps	-- / BBB- / --	
AES Southland Portfolio	NAm	USD	225	19-Dec	--	--	--	--	--	
Adani Green Energy Portfolio	APac	USD	363	19-Dec	20	13	4.625%	--	IG	
Tajimi Solar PV Plant	APac	JPY	11,000	19-Dec	22	--	--	--	--	
Bothwell Spain SA	EMEA	EUR	268	19-Dec	19	--	--	--	--	
Parque Eolico Kiyu S.A.	LatAm	USD	88	19-Nov	23	14	4.860%	300bps	-- / BBB- / --	
Adani Transmission Line	APac	USD	500	19-Nov	17	10	4.250%	--	Baa3 / -- / BBB-	
Cove Point LNG	NAm	USD	1,325	19-Nov	19	11	3.920%	215 bps	--	
Akuo Energy	EMEA	EUR	45	19-Nov	6	--	4.000%	--	--	
Ventos do Sul	LatAm	BRL	227 / 98	19-Nov	--	--	CDI+750bps / HICP+325bps	--	AAA(bra)	
Cheniere Corpus Christi Holdings LLC	NAm	USD	1,500	19-Nov	10	--	3.700%	190 bps	Ba1 / BBB- / BBB-	
Carlsbad Energy Center (HoldCo)	NAm	USD	216	19-Nov	19	--	4.210%	--	IG	
Prairie Breeze Class B Holdings LLC	NAm	USD	176	19-Nov	20	13	3.550%	180 bps	BBB-	
DTEK Renewables	EMEA	EUR	325	19-Nov	5	--	8.500%	--	-- / -- / B	
Ohio State Energy Partners	NAm	USD	240	19-Oct	30	Bullet	3.820% / 3.870%	155 bps / 160 bps (delay funding)	-- / A- / --	
Arcoverde Transmission Line	APac	INR	52	19-Oct	23	--	--	--	-- / -- / AAA	
CED California Holdings IV LLC	NAm	USD	303	19-Oct	19	11	3.820%	202 bps	NAIC-2	
Cheniere Corpus Christi Holdings LLC	NAm	USD	475	19-Oct	20	15	3.925%	202 bps	Ba1 / BBB- / BBB-	
Cypark Ref Sdn Bhd	APac	RM	550	19-Oct	3 - 21	--	4.600% - 5.990%	--	AA3 (RAM)	
Edra Solar	APac	RM	245	19-Oct	3 - 18	--	3.950% - 5.050%	--	AA2 (RAM)	
INFRASTRUCTURE										
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
West Coast Partnership (WCP) Rolling Stock	EMEA	GBP	315	19-Dec	30	--	3.000%	200 bps	--	
Veenix A9 Amstelveen motorway PPP	EMEA	EU	170	19-Dec	21	--	--	--	--	
Angel Trains	EMEA	GBP	125	19-Dec	8	--	--	--	--	
Braskem Idesa	LatAm	USD	900	19-Dec	10	--	7.500%	--	-- / BB- / BB	
Line One Peru Metro Expansion Company Ltd.	LatAm	USD	72	19-Dec	14	--	3.483%	--	--	
Ermewa Group	EMEA	EUR	465	19-Nov	10 / 12 / 15	--	--	--	--	
Silvertown Tunnel PPP	EMEA	GBP	90	19-Nov	29	--	--	--	--	
Mersin International Port	EMEA	USD	600	19-Nov	5	Callable	5.375%	--	--	
Augsburger Netze Rolling Stock Scheme (Lot 2)	EMEA	EUR	ND	19-Nov	ND	--	--	--	--	
Indiana Toll Road Concession Co	NAm	USD	670	19-Nov	7 / 10 / 12 / 15 / 20	--	--	130 bps / 140 bps / 150 bps / 160 bps	-- / BBB	
Port of Melbourne	APac	AUD	550	19-Nov	7	--	2.450%	IS+130bps	Baa2 / BBB	
Glasgow City Council SPV	EMEA	GBP	195	19-Oct	30	--	--	--	-- / AA / --	
Prumo Participacoes e Investimentos (Prumopar)	LatAm	USD	50	19-Oct	12	--	7.500%	--	-- / -- / BB	
Rutas 2 and 7 Finance	LatAm	USD	290	19-Oct	16	10	5.000%	324 bps	Ba1 / BB / BB+	
Alpha Trains	EMEA	EUR	200	19-Oct	12	Bullet	--	--	-- / -- / BBB	
Porterbrook Rail	EMEA	GBP	150	19-Oct	12	7	2.560%	--	Baa2 / -- / --	

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal.



GLOBAL BOND MARKET OVERVIEW

Market update December 2019

EUR Bond Corporate Market

- 2019 was exceptional in many ways in the primary market. First of all, 2019 saw the highest ever level of issuance: €375BN issued i.e. 40% above the total volume in 2018 and 18% above the previous record year of 2017 when €317BN priced over the entire year. This record was in large part due to a accommodative rate environment weighing on yields; leading numerous issuers to take advantage of favourable bond market conditions. On the back of this positive environment, issuers achieved longer duration. The average tenor was 8.6 years for 2019 compared to 7.6 years in 2018 and 7 issuers tapped the 30-year part of the curve. Such strong appetite could also be seen in average NIP levels: 5.1bps in 2019 – down from 11.4bps in 2018.
- Christine Lagarde chaired her first meeting as President of the ECB. No major changes were announced. Economists believe that this situation should continue until the effects of the latest 0.5% rate cut and the €20BN bond buyback program launched in September are known. This would potentially become clear before June 2020. The ECB reiterated that rates would not rise until inflation expectations approach 2%. Regarding the outlook, the ECB is slightly more confident about the short-term but remains very cautious on the long-term trend for core inflation.
- As expected, markets closed early in December. The last bond issuance was on December 9th : JAB Holdings launched €1.5BN notes in two tranches (8 & 20 years).

Key Transaction in December

- On December 2nd, French electric utility company EDF (A3/A-) announced a 30-year €1.25BN transaction. IPTs were released at MS+185bps area and the transaction was finally priced at MS+165bps.

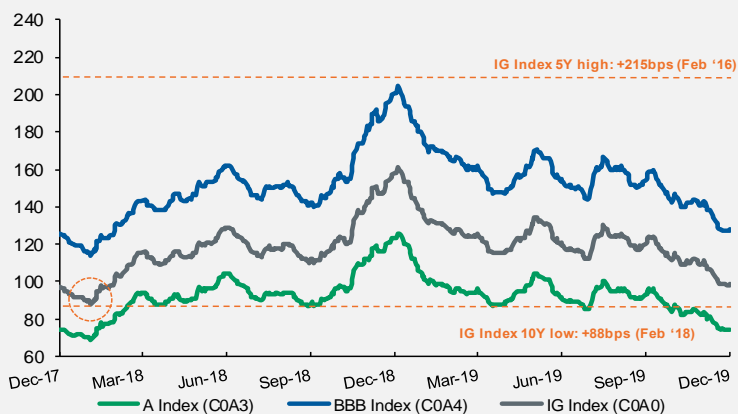
US Investment Grade Public Corporate Bond Market

- In 2019, just over \$1.1TN of investment-grade corporate debt was sold in the US, lagging 5% behind last year's pace, with the average NIC coming in at -3 bps while the average book size jumped to 3.1x covered. Lipper 2019 net fund flows finished with an inflow of \$120BN. December 2019 volume finished at ~\$18.5BN (short of the \$25BN anticipated).
- The market remains inviting for potentially supercharged debt issuance with funding costs at the best levels ever for the start of a year, an incentive to get ahead of potential U.S. election-induced volatility beginning in March. However, all that could change drastically after the emergence of new geopolitical risk in the Middle East, with concerns over a possible Iranian retaliation following an unexpected US airstrike against top Iranian commander Qasem Soleimani. The Islamic Republic vowed revenge and later announced it will no longer abide by key terms of the 2015 nuclear deals, lifting uranium enrichment restrictions.
- Despite the sudden escalation of tension in the Middle East, issuers can still take advantage of historically low rates in conjunction with credit spreads approaching post-crisis tight, and an improved overall market sentiment that has emerged by what seems like a resolution of the US-China trade war.

Transaction Highlight

- Welltower Inc (Baa1/BBB+) tapping the market with a \$500mm offering of 7Y Green notes. CACIB assisted Welltower in creating a Green Bond Framework and acted as Active Joint Bookrunner on the transaction.

	Statistics (LTM)				
	Min	Max	Average	Current	Δ 01/02/19
IG Index	98	161	122	99	-59
A Index	74	126	94	74	-49
BBB Index	127	205	158	128	-73



USPP Market Highlight

- The volume of private placements reached \$6.1BN in December vs. \$4.5BN in November and \$5.1BN last December. November volume consisted in 34 issues by 19 issuers vs. 26 issues by 14 issuers last month.
- 2019 issuances lag behind last year's issuances by 5% with \$64.9BN of USPP issued vs \$68.4BN last year. 60% of the issuances were NAIC-2 while the remaining 40% were NAIC-1.
- The issuances of USPP were mainly domestic in December (80%) similarly to the rest of the quarter. On an annual basis, the amount of domestic USPP issued have been outperforming the cross-border USPP at 55% vs 45%.
- Energy and Infrastructure (including transportation) issuances have been accounting for 59% of the total 2019 issuance accounting for 37% and 23% respectively.



EMEA BOND MARKET OVERVIEW

EMEA market – Public secondary levels

Sources: Crédit Agricole CIB, Bloomberg

ENERGY										
Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM	
21/02/2017	2i Rete Gas	Italy	Baa2	BBB	2026	435	1,750%	83	0,71	
24/10/2017	2i Rete Gas	Italy	Baa2	BBB	2027	550	1,608%	92	0,87	
04/09/2018	2i Rete Gas	Italy	Baa2	BBB	2025	500	2,195%	70	0,53	
09/03/2017	A2A	Italy	Baa3	BBB	2024	300	1,250%	46	0,23	
10/12/2013	Elenia Finance	Finland	NR	BBB	2020	500	2,875%	31	-0,03	
31/03/2017	Elia	Belgium	NR	BBB+	2027	250	1,375%	67	0,59	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2034	100	3,250%	136	1,70	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2029	250	2,750%	155	1,64	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2032	50	2,375%	159	1,83	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2027	300	1,750%	149	1,44	
22/11/2013	Madrilena Red de Gas Finance	Spain	NR	BBB	2023	275	4,500%	66	0,41	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2029	300	2,250%	119	1,23	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2025	300	1,375%	80	0,61	
05/07/2017	National Grid	UK	Baa1	BBB+	2024	500	1,000%	53	0,31	
21/09/2017	NorteGas	Spain	NR	BBB-	2027	750	2,065%	115	1,10	
21/09/2017	NorteGas	Spain	NR	BBB-	2022	550	0,918%	49	0,19	
24/03/2014	Redexis Gas	Spain	Baa3	BBB	2021	650	2,750%	45	0,12	
20/09/2018	RTE	France	NR	A	2038	500	2,125%	45	0,90	
20/09/2018	RTE	France	NR	A	2030	500	1,500%	35	0,49	
30/08/2017	SSE	UK	A3	A-	2025	600	0,875%	50	0,32	
28/08/2018	SSE	UK	A3	A-	2027	650	1,375%	57	0,51	
13/03/2017	Statkraft	Norway	Baa1	A-	2025	500	1,125%	40	0,21	
19/07/2017	Terna	Italy	Baa1	BBB	2027	1 000	1,375%	56	0,52	
03/06/2013	Vier Gas Transport	Germany	NR	BBB+	2025	750	2,875%	24	0,07	
03/06/2013	Vier Gas Transport	Germany	NR	A-	2020	750	2,000%	12	-0,22	
01/07/2013	Vier Gas Transport	Germany	NR	A-	2023	750	3,125%	19	-0,07	
17/09/2018	Vier Gas Transport	Germany	NR	A-	2028	500	1,500%	36	0,38	
20/11/2015	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2023	500	2,375%	71	0,45	
23/05/2016	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2026	550	2,875%	99	0,86	

INFRASTRUCTURE AND TRANSPORTATION										
Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM	
10/05/2016	Abertis	Spain	NR	BBB	2026	1 150	1,375%	109	0,98	
02/11/2016	Abertis	Spain	NR	BBB	2027	500	1,000%	113	1,06	
05/12/2013	Aeroporti Di Roma	Italy	Baa1	BBB+	2021	600	3,250%	65	0,31	
01/06/2017	Aeroporti Di Roma	Italy	Baa1	BBB+	2027	500	1,625%	138	1,31	
28/05/2013	Aeroports de Paris	France	NR	A+	2028	600	2,750%	18	0,19	
01/10/2014	Aeroports de Paris	France	NR	A+	2025	500	1,500%	19	0,00	
15/07/2015	Aeroports de Paris	France	NR	A+	2023	500	1,500%	17	-0,10	
06/12/2017	Aeroports de Paris	France	NR	A+	2027	500	1,000%	22	0,18	
04/10/2018	Aeroports de Paris	France	NR	A+	2038	500	2,125%	45	0,91	
18/03/2015	Alpha Trains	Luxembourg	Baa2	NR	2025	350	2,064%	125	1,08	
01/06/2016	APRR	France	Baa2	A-	2026	700	1,125%	25	0,10	
16/11/2016	APRR	France	Baa2	A-	2031	500	1,875%	43	0,58	
16/11/2016	APRR	France	Baa2	A-	2027	500	1,250%	26	0,16	
31/05/2017	APRR	France	Baa2	A-	2032	500	1,625%	43	0,64	
06/11/2017	APRR	France	NR	A-	2033	700	1,500%	41	0,66	
04/05/2016	ASF	France	A3	A-	2026	500	1,000%	26	0,13	
05/01/2017	ASF	France	A3	A-	2027	1 000	1,250%	25	0,16	
05/04/2017	ASF	France	A3	A-	2026	500	1,125%	26	0,12	
10/01/2018	ASF	France	A3	A-	2030	1 000	1,375%	40	0,50	
21/06/2018	ASF	France	A3	A-	2028	700	1,375%	26	0,25	
26/01/2017	Atlantia	Italy	Baa2	BBB	2025	750	1,625%	332	3,13	
06/07/2017	Atlantia	Italy	Baa2	BBB	2027	1 000	1,875%	340	3,35	
18/09/2017	Autostrade	Italy	Baa1	BBB+	2029	700	1,875%	299	3,08	
03/05/2017	Brisa	Portugal	Baa3	NR	2027	300	2,375%	97	0,91	
25/06/2013	Brussels Airport	Belgium	Baa1	NR	2020	500	3,250%	39	0,06	
26/04/2017	Brussels Airport	Belgium	Aa1	NR	2024	300	1,000%	49	0,26	
03/02/2014	Heathrow Funding	UK	NR	A-	2030	750	1,500%	68	0,79	
13/05/2014	Heathrow Funding	UK	NR	A-	2022	600	1,875%	32	0,01	
28/06/2017	Heathrow Funding	UK	NR	A-	2032	500	1,875%	78	1,02	
17/11/2017	HIT	France	Baa3	NR	2027	500	1,625%	119	1,16	
17/11/2017	HIT	France	Baa3	NR	2023	500	0,625%	78	0,49	
09/10/2014	Infra Park (Indigo)	France	NR	BBB	2025	650	2,125%	46	0,27	
12/07/2017	Infra Park (Indigo)	France	NR	BBB	2037	125	2,951%	122	1,64	
06/11/2015	SANEF	France	Baa1	NR	2026	600	1,875%	79	0,65	
11/10/2016	SANEF	France	Baa1	NR	2028	300	0,950%	101	1,04	
17/04/2018	Sydney Airport	Australia	Baa1	BBB+	2028	500	1,750%	60	0,59	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2027	300	2,375%	182	1,80	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2024	300	1,625%	134	1,15	
06/09/2017	Transurban	Australia	Baa1	BBB+	2028	500	1,750%	78	0,76	



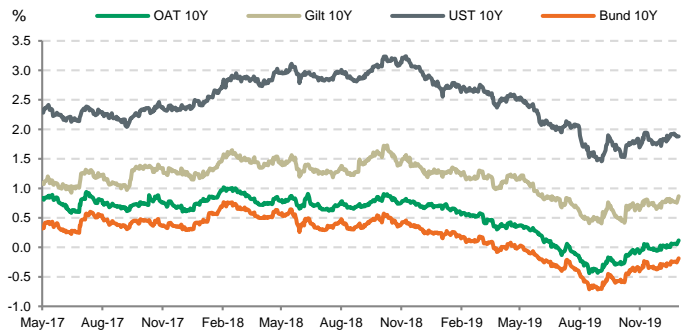
MACROECONOMIC ENVIRONMENT

- Facing a global economic slowdown and increasing uncertainty, 2019 was marked by the dovishness of Central Banks and the reappearance of accommodative policies around the world. Two thirds of Central Banks at a global level cut interest rates during the year.
- In the UK, Boris Johnson's election victory gave him a mandate to pull out of the EU on January 31st and provide the market with a Brexit-free zone for the next six months. The pound rose nearly by 2% to \$1.35 after exit polls showed a conservative majority (on December 12nd), its highest level since May 2018. However, agreeing to a trade deal is likely to be prove just as difficult a process as the withdrawal agreement. Trade talks will last until the end of 2020 and could yet be extended by 2 years.
- Donald Trump announced on December 13rd a phase-one trade agreement with China that should be signed on January 15th. The US plan for new taxes on \$160BN of Chinese consumer products imports were suspended. In return, China agreed to increase its agricultural purchases in the US by \$50BN per year and make commitments on currency and intellectual property rights. However, the deal has yet to be signed and does not address many of the most significant concerns that the US has with China's economic practices, particularly its industrial policy and subsidies of state-owned enterprises. They will be addressed in future talks and the remaining tariffs will continue to exert pressure on China to accede to America's demands.
- The IDB (Inter-American Development Bank) announced during the COP25 in Madrid the creation of the Green Bond Transparency Platform (GBTP). This digital platform will improve the confidence of investors in the Latin American and Caribbean green bond market by enhancing its transparency.

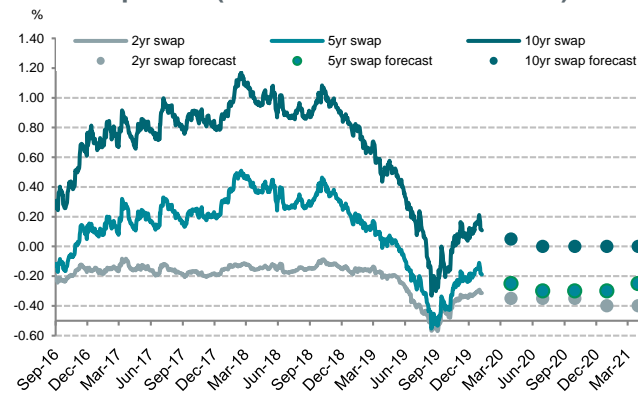
Swap rates (as of December 31st, 2019)

	EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
3Y	-0,24%	-23,7%	1,66%	5,0%	0,86%	7,9%
5Y	-0,11%	-51,7%	1,70%	7,0%	0,93%	11,9%
7Y	0,02%	-114,2%	1,76%	8,1%	0,99%	14,8%
10Y	0,21%	290,2%	1,85%	8,7%	1,06%	16,4%
12Y	0,33%	100,2%	1,90%	8,8%	1,10%	16,3%
15Y	0,47%	57,3%	1,96%	8,8%	1,14%	16,1%
20Y	0,60%	41,9%	2,01%	8,4%	1,17%	15,3%

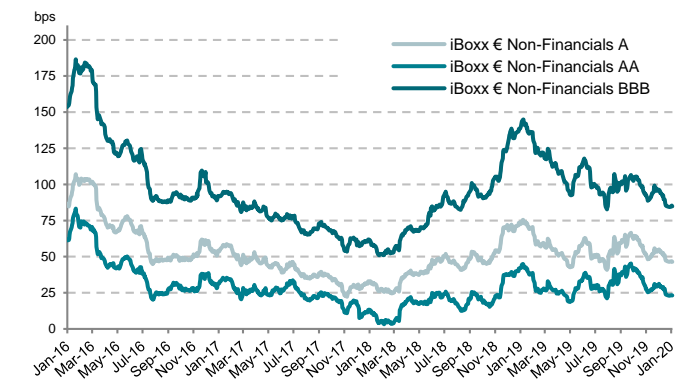
Government yields (10Y)



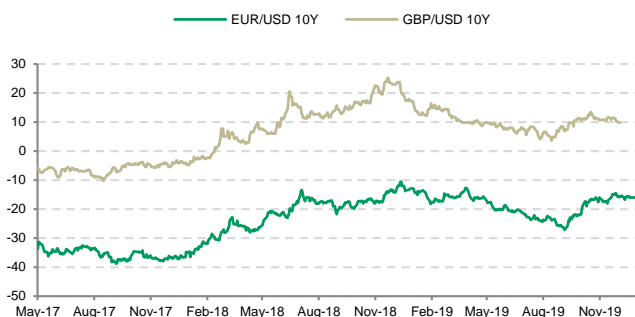
EUR swap rates (historic and forward levels)



Credit spread evolutions (EUR)



10Y basis swap evolution



Main upcoming events

	Events / Data	Expected impact
23-Jan	ECB monetary meeting	No change expected
29-Jan	Fed meeting	Lower Us rates and USD
31-Jan	Brexit deadline	N/A

iBoxx™ bond indices offer broad benchmarking and liquid tradable index solutions that track bond markets globally. Fuelled by multi-source pricing, iBoxx provides transparency to bond market performance.

Sources: Bloomberg, Crédit Agricole CIB



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